

Figure - 1 -

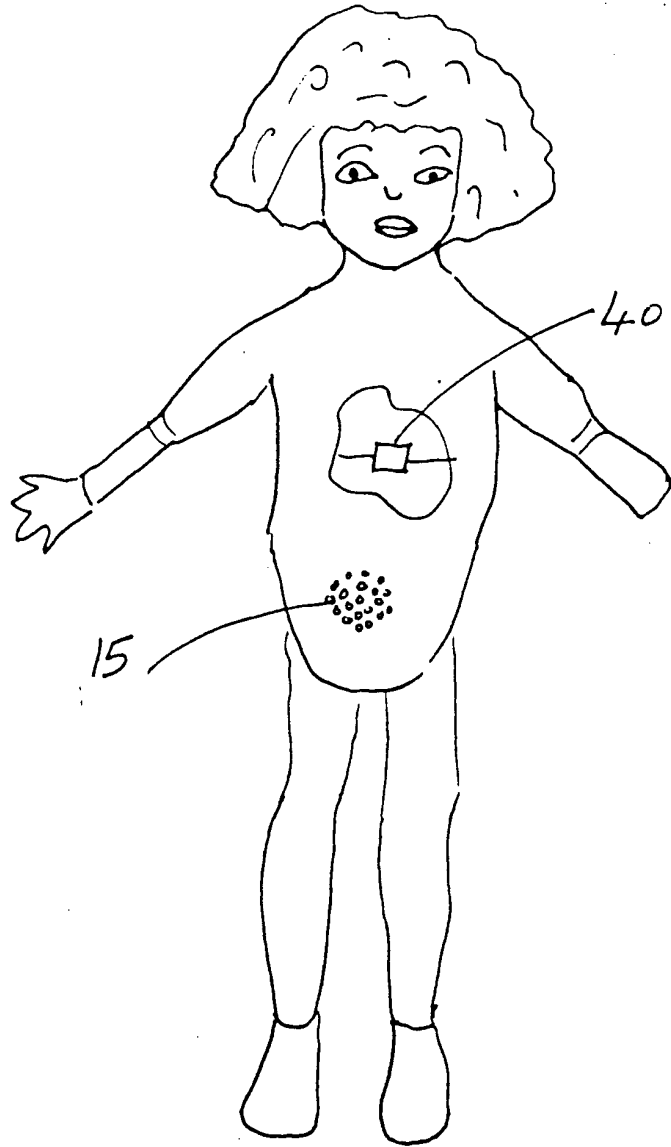


Figure -2-

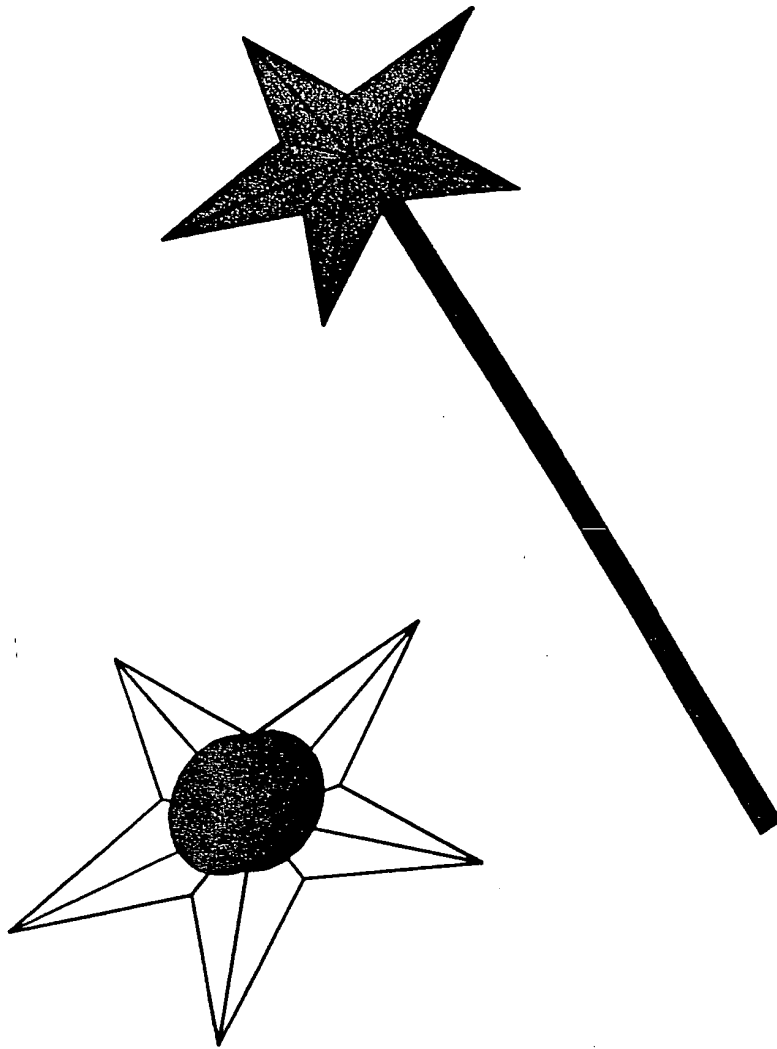


Figure - 3 -

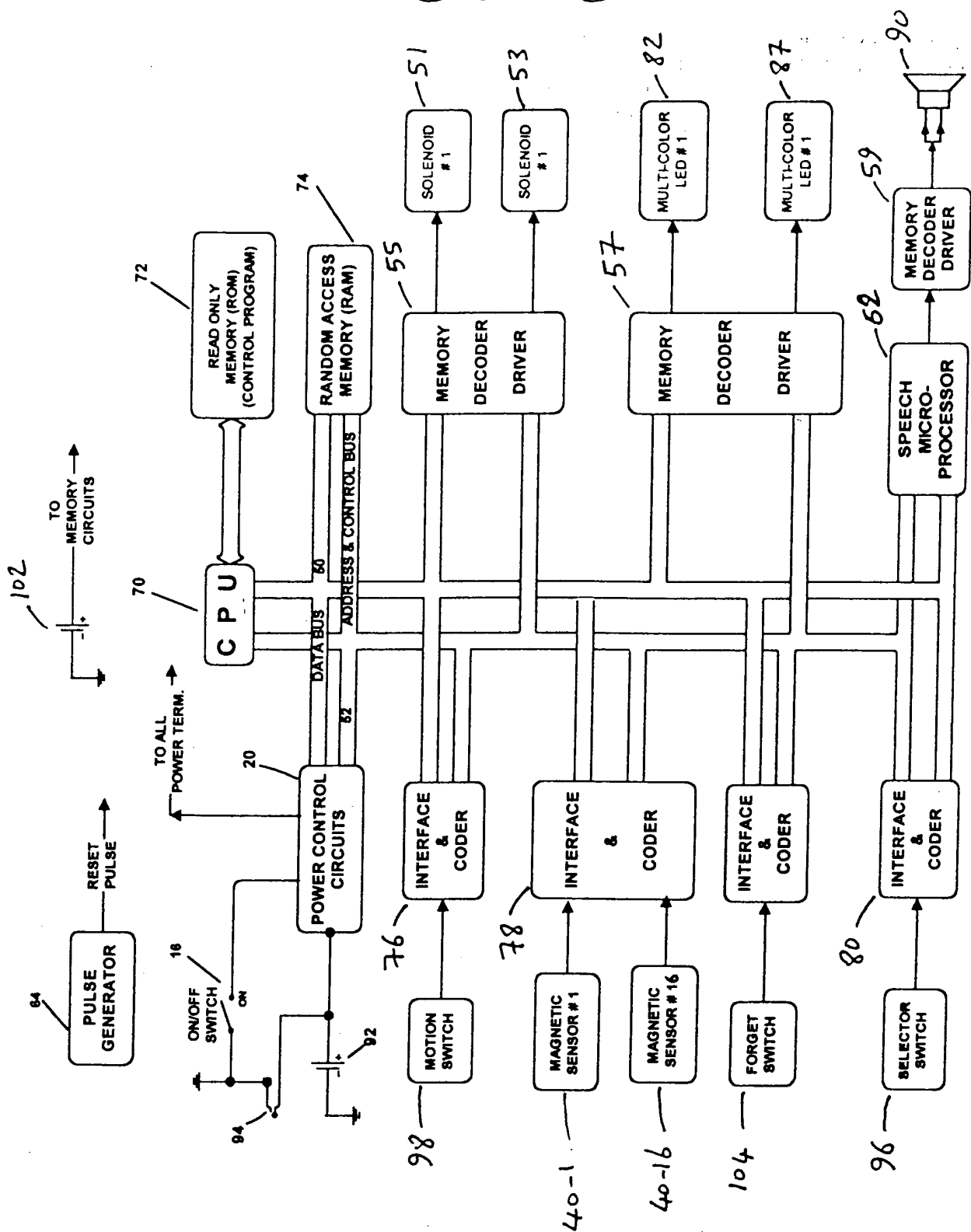


Figure - 4 -

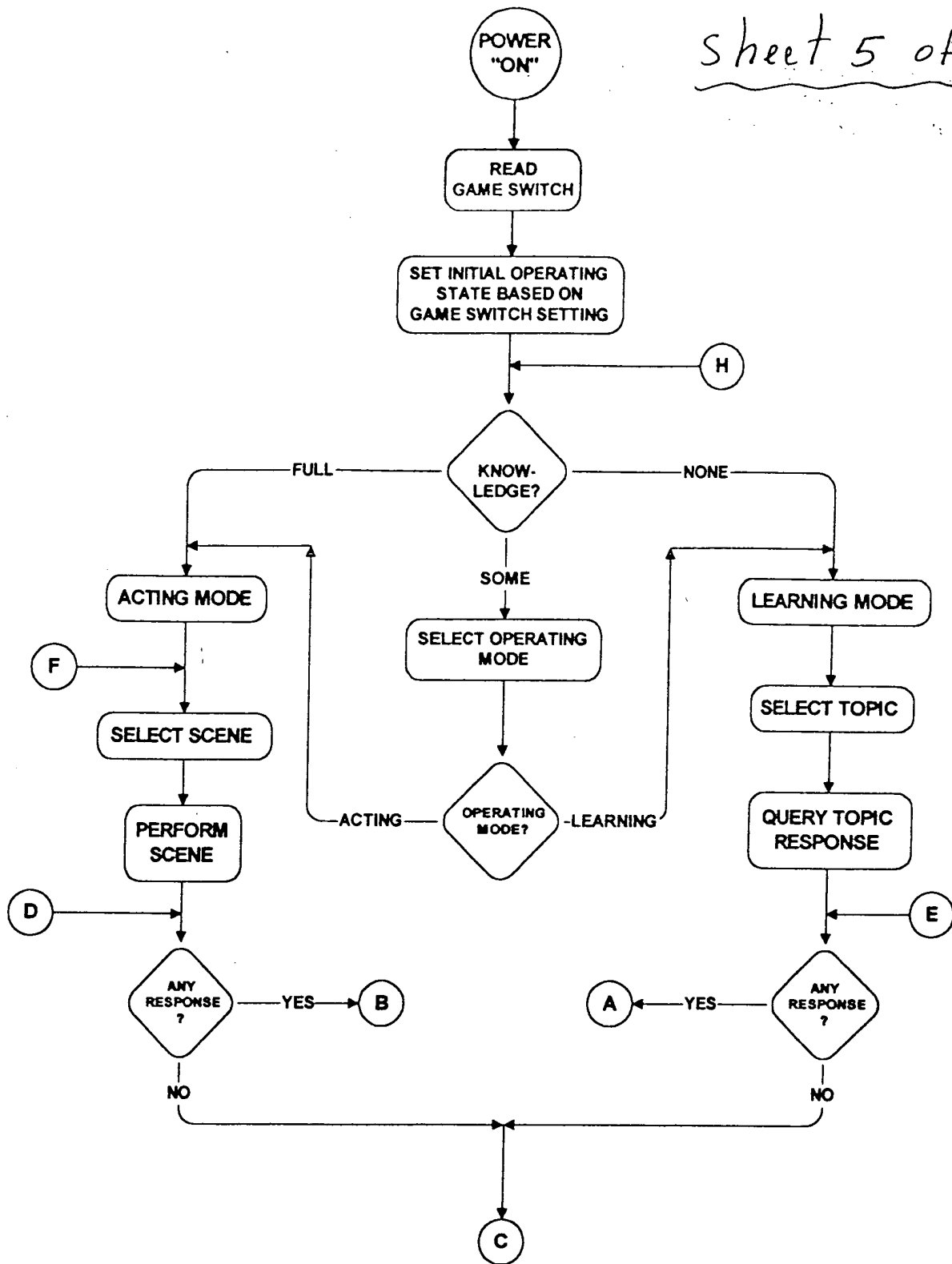


Figure - 5 -

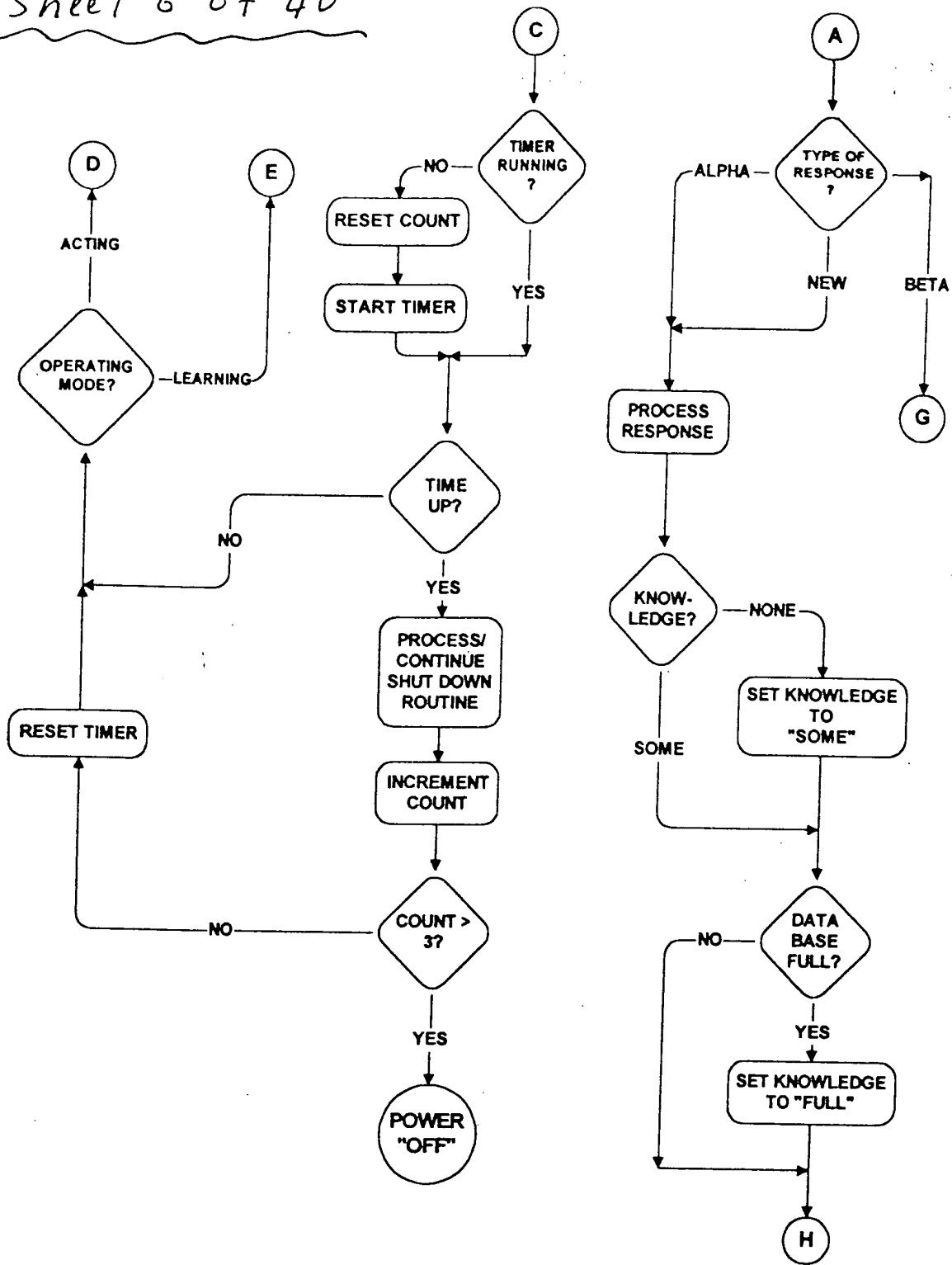


Figure - 6 -

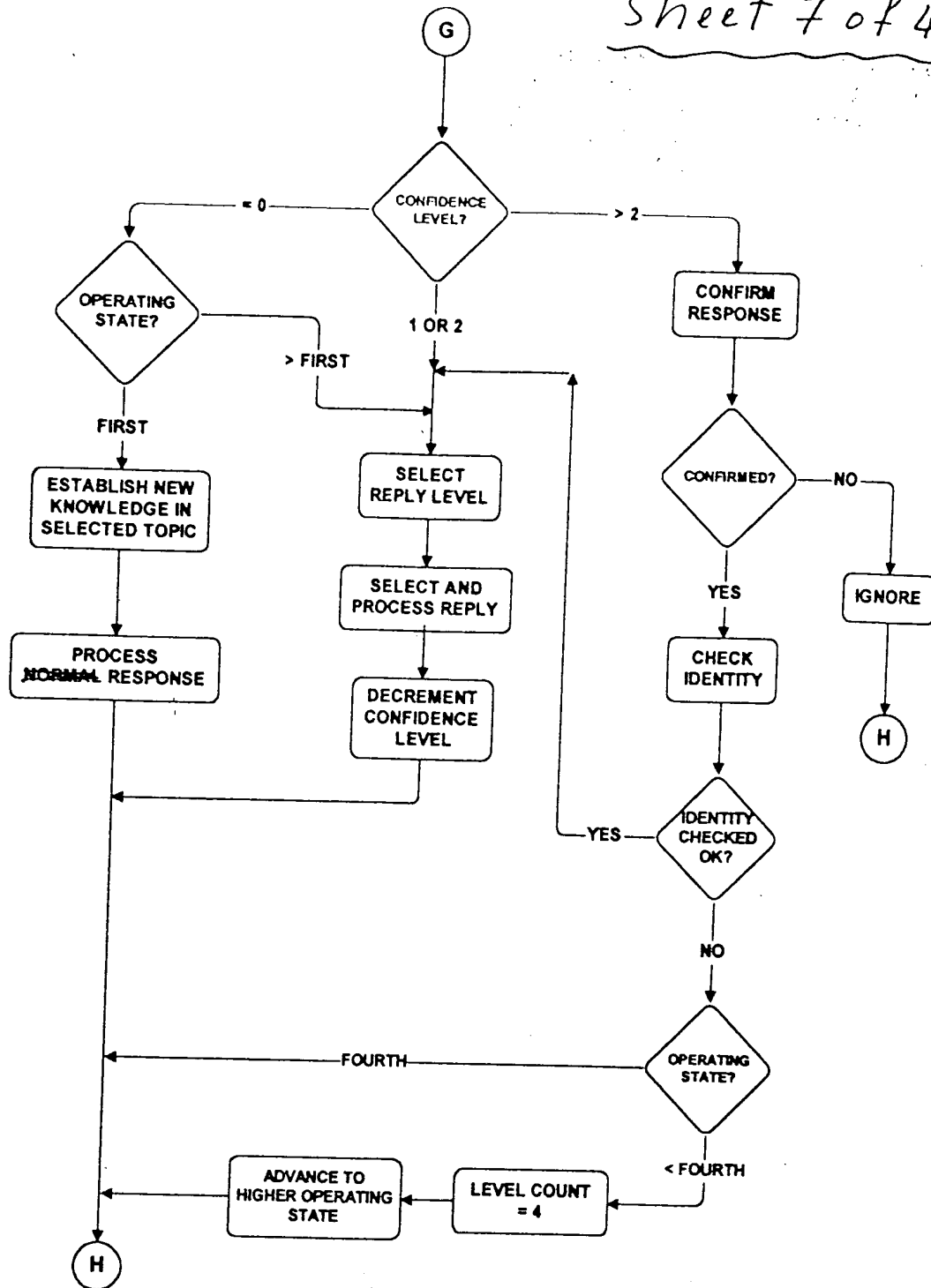


Figure - 7 -

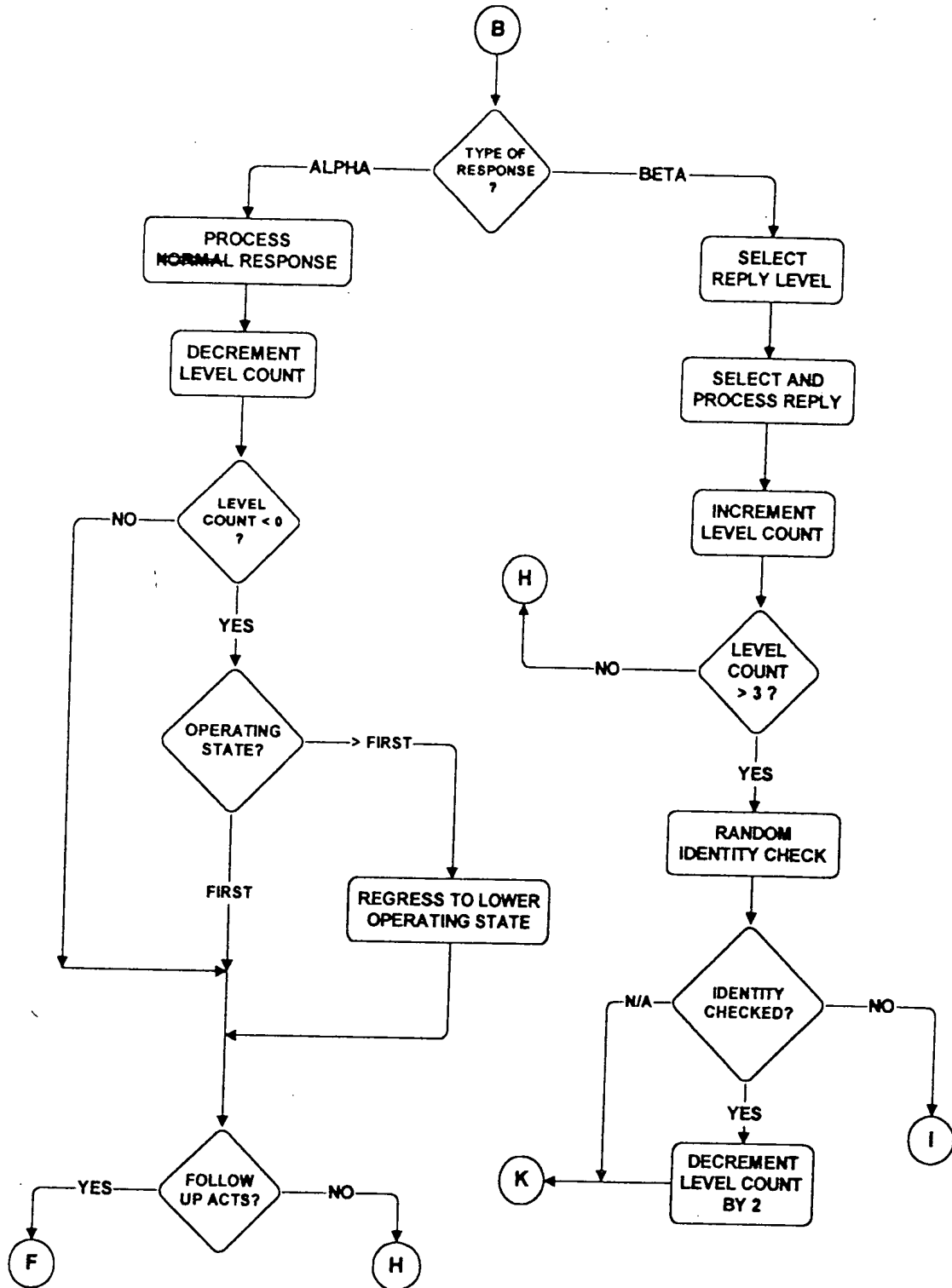


Figure - 8 -



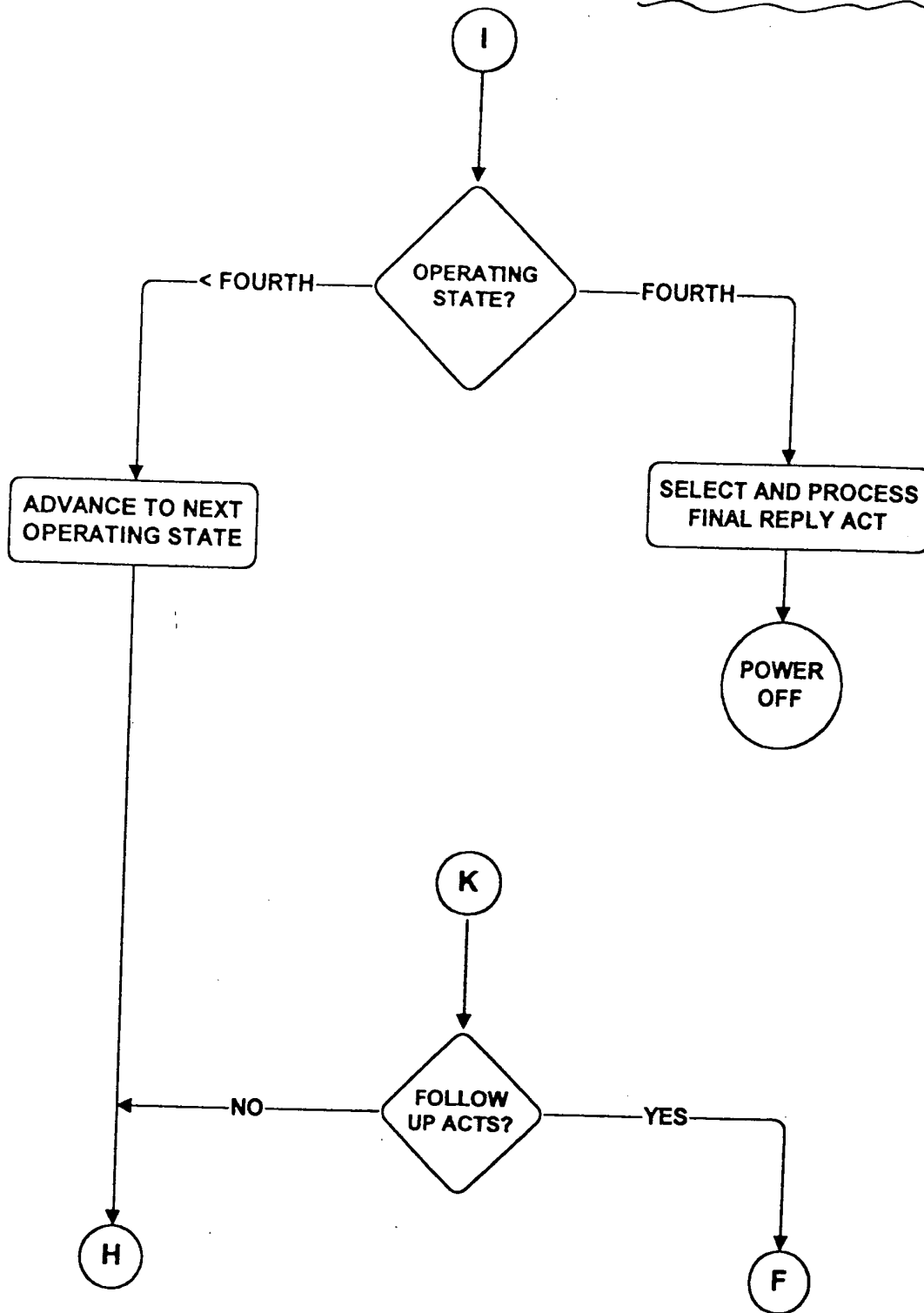


Figure - 9 -

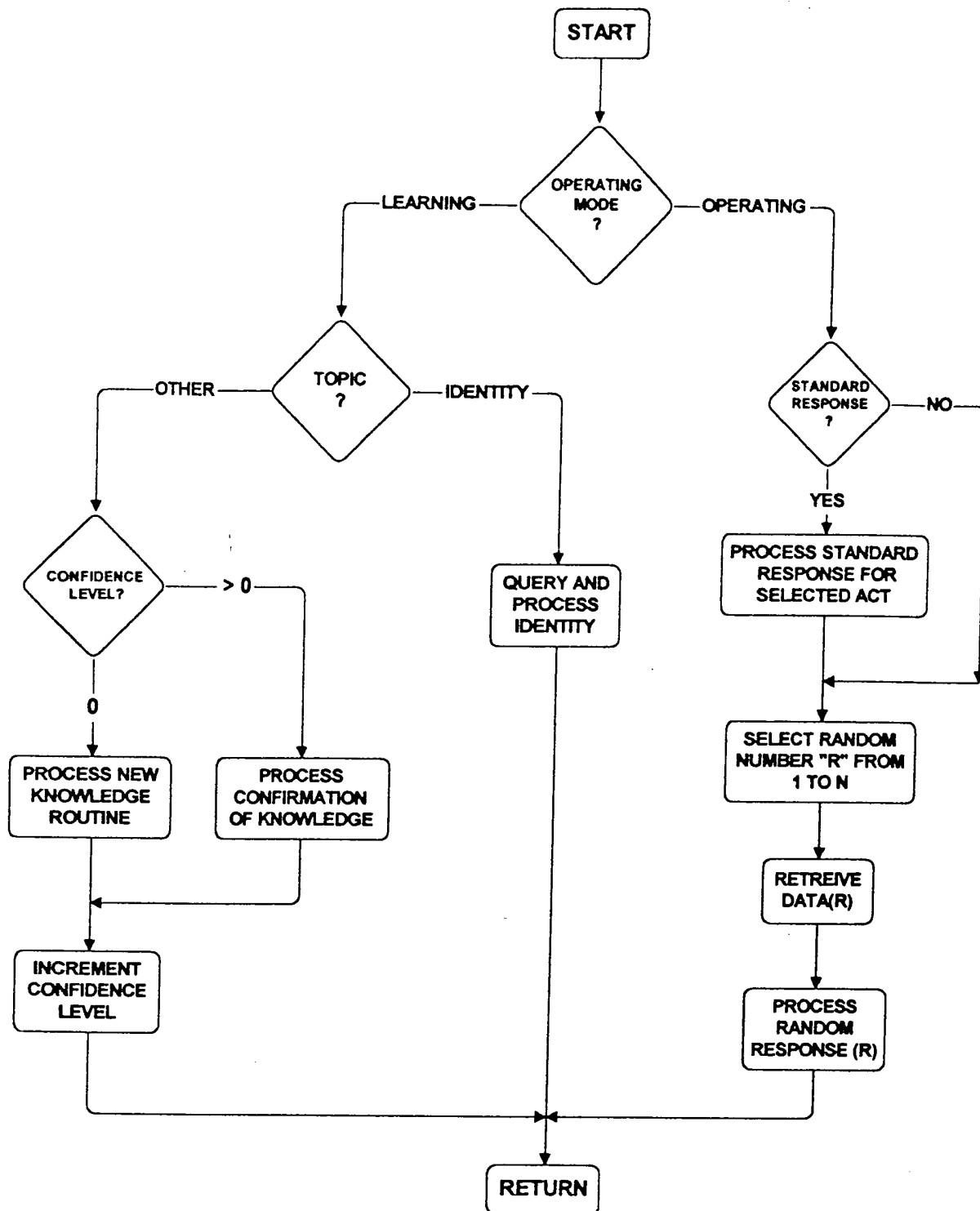


Figure - 10 -

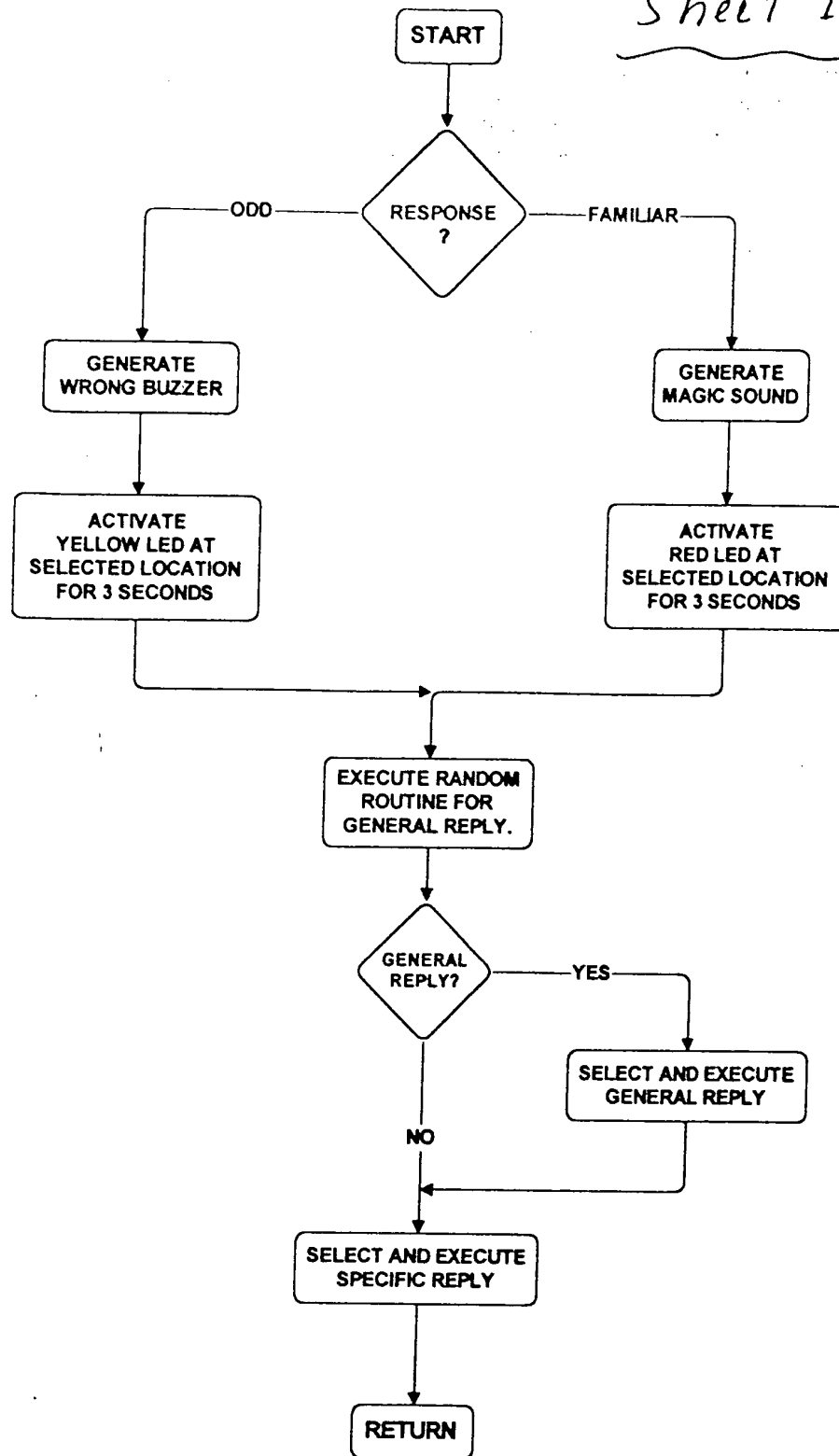


Figure - 11 -

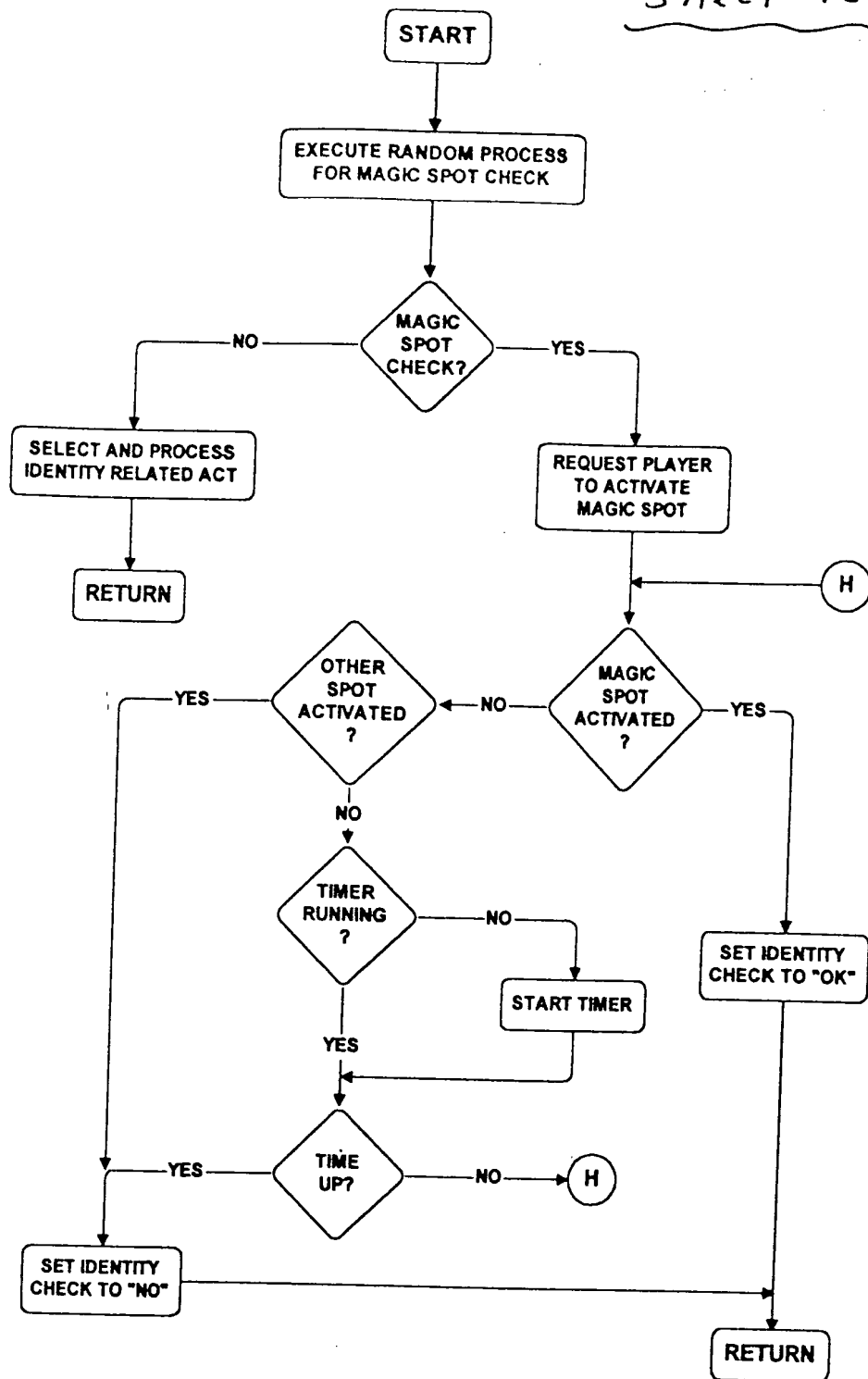


Figure - 12 -

CONFIDENCE LEVEL				
OPERATING STATE	0	1	2	> 2
1	NORMAL	NORMAL	NORMAL	NORMAL
2	NEUTRAL	NORMAL	NORMAL	NORMAL
3	NEUTRAL	NEUTRAL	NORMAL	NORMAL
4	NEUTRAL	NEUTRAL	NEUTRAL	NORMAL

REPLY LEVELS TO ALPHA RESPONSES DURING LEARNING MODE

Figure - 13 -

CONFIDENCE LEVEL				
OPERATING STATE	0	1	2	> 2
1	NORMAL	NORMAL	NEUTRAL	LEVEL 1
2	NEUTRAL	NEUTRAL	LEVEL 1	LEVEL 1
3	NEUTRAL	LEVEL 1	LEVEL 1	LEVEL 2
4	NEUTRAL	LEVEL 1	LEVEL 2	LEVEL 2

REPLY LEVELS TO BETA RESPONSES DURING LEARNING MODE

Figure - 14 -

CONFIDENCE LEVEL				
OPERATING STATE	0	1	2	> 2
1	NORMAL	NORMAL	NORMAL	NORMAL
2	NEUTRAL	NORMAL	NORMAL	NORMAL
3	NEUTRAL	NEUTRAL	NEUTRAL	NORMAL
4	NEUTRAL	NEUTRAL	NEUTRAL	NEUTRAL

REPLY LEVELS FOR ALPHA RESPONSES DURING OPERATING MODE

Figure - 15 -

CONFIDENCE LEVEL				
OPERATING STATE	0	1	2	> 2
1	NORMAL	NORMAL	NEUTRAL	LEVEL 1
2	NORMAL	NEUTRAL	LEVEL 1	LEVEL 2
3	NEUTRAL	LEVEL 1	LEVEL 2	LEVEL 3
4	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4

REPLY LEVELS FOR BETA RESPONSES DURING OPERATING MODE

Figure - 16 -

# Sheet 15 of 40

TYPICAL PROMPT	NORMAL REPLY
Mammy, I am hungry!	Yummy! That tastes so good!
Mammy, I want to play.	You are fun Mammy!
Mammy, can I have some milk.	I like milk. Its good for me!
Mammy, I am scared its too dark.	Thank you Mammy. Stay close to me.
Mammy, I am cold.	Mammy you have a magic touch. Its nice and warm now.
<ul style="list-style-type: none"> <li>Mammy, I can't sleep.</li> </ul>	<ol style="list-style-type: none"> <li>1. Yawn! I am so sleepy . . . Good night.</li> <li>2. PAUSE, CLOSE EYES</li> <li>3. Snooze Snooze Snooze Snooze</li> <li>4. PAUSE, OPEN EYES</li> <li>5. I had a good sleep.</li> </ol>
Mammy, I am thirsty.	Thank you . . . I like ice water.
Mammy, can you brush my hair.	My hair is long and pretty!
Mammy, I cut my finger.	Thank you Mammy. I will be careful next time
<ul style="list-style-type: none"> <li>Mammy, my feet hurts (or my head hurts, or my back hurts, or my neck hurts, etc.).</li> <li>(Turn associated LED "ON")</li> </ul>	<ul style="list-style-type: none"> <li>I feel better Mammy</li> <li>(Pause then turn LED "OFF")</li> </ul>
Mammy, I have a bad headache.	Your touch is like magic!
Mammy, I don't feel good.	I feel great now!
<ol style="list-style-type: none"> <li>1. Mammy, I am bored.</li> <li>2. I am done and I am still bored.</li> </ol>	<ol style="list-style-type: none"> <li>1. OK Mom. This will keep me busy</li> <li>2. Good idea! I will read a long book.</li> </ol>
Mammy can you tell me a joke!	<p>That's very funny!</p> <p>or</p> <p>Jiggle . . . Jiggle . . . Jiggle</p> <p>or</p> <p>You are the funniest Mom in the whole world.</p>
Mammy, I am too hot.	It's nice now!

## NORMAL SPECIFIC REPLIES

Figure - 17 -

sheet 16 of 40

TYPICAL PROMPT	NEUTRAL REPLY
Mammy, I am hungry!	Vegetables have a lot of vitamins!
Mammy, I want to play.	I have a lot of toys!
Mammy, can I have some milk.	I wish if I have my own cow!
Mammy, I am scared its too dark.	I don't like scary movies!
Mammy, I am cold.	I like summer!
Mammy, I can't sleep.	I had a bad dream last night!
Mammy, I am thirsty.	I like apple juice better!
Mammy, can you brush my hair.	I brush my hair twice a day!
Mammy, I cut my finger.	I can't finish my homework now!
<ul style="list-style-type: none"> <li>• Mammy, my feet hurts (or my head hurts, or my back hurts, or my neck hurts, etc.).</li> <li>• (Turn associated LED "ON")</li> </ul>	<ul style="list-style-type: none"> <li>• I should go to a doctor!</li> <li>• (Turn LED "OFF")</li> </ul>
Mammy, I have a bad headache.	I am studying too much!
Mammy, I don't feel good.	May be I have a bug!
1. Mammy, I am bored.	1. All my friends are busy!
2. I am done and I am still bored.	2. I wish I have a puppy!
Mammy can you tell me a joke!	I like funny movies! or My new teacher is so funny! or I know a lot of jokes!
Mammy, I am too hot.	I have a cool idea!

NEUTRAL SPECIFIC REPLIES

Figure - 18 -



REPLY

sheet 18 of 40

TYPICAL PROMPT	LEVEL 2 REPLY
Mammy, I am hungry!	I am starving!
Mammy, I want to play.	You don't do anything with me!
Mammy, can I have some milk.	This milk is sour!
Mammy, I am scared its too dark.	You don't care about me!
Mammy, I am cold.	Mammy I am freezing now.
Mammy, I can't sleep.	Mammy you forgot your magic touch!
Mammy, I am thirsty.	All I am asking for is a glass of water!
Mammy, can you brush my hair.	I think I am going to loose my hair!
Mammy, I cut my finger.	Mammy I am bleeding now!
<ul style="list-style-type: none"> <li>• Mammy, my feet hurts (or my head hurts, or my back hurts, or my neck hurts, etc.).</li> <li>• (Turn associated LED "ON")</li> </ul>	<ul style="list-style-type: none"> <li>• I have a lot of pain!</li> </ul> <p style="text-align: right;">OR</p> <p>(Crying sound)</p> <ul style="list-style-type: none"> <li>• (Flash LED)</li> </ul>
Mammy, I have a bad headache.	You are making me worse!
Mammy, I don't feel good.	I feel terrible!
1. Mammy, I am bored.	1. This will put me to sleep!
2. I am done and I am still bored.	2. This is no fun!.
Mammy can you tell me a joke!	That's not funny!
	or
	Is that a joke!
	or
	Try again!
Mammy, I am too hot.	This heat will make me sick!

### LEVEL 2 SPECIFIC REPLIES

Figure - 20 -

OPERATING LEVEL	REPLY TO IDENTITY CHECK
1	<ul style="list-style-type: none"><li>• HI MOM</li><li>• JUST CHECKING MAMMY</li><li>• I MISSED YOU MOM</li><li>• I AM ONLY TEASING YOU</li><li>• I WANT TO PLAY WITH YOU MAMMY</li></ul>
2	<ul style="list-style-type: none"><li>• I AM GLAD YOU STILL HERE</li><li>• I THOUGHT YOU LEFT</li><li>• NOW YOU REMEMBER!</li><li>• DON'T LET ANYBODY ELSE PLAY WITH ME</li><li>• I MISS YOUR MAGIC TOUCH</li></ul>
3	<ul style="list-style-type: none"><li>• LUCKY GUESS</li><li>• I STILL HAVE MY DOUBTS</li><li>• MAY BE YOU SHOULD PLAY LOTTO!</li><li>• I THINK YOU ARE CHEATING!</li><li>• THIS IS VERY CONFUSING!</li></ul>
4	<ul style="list-style-type: none"><li>• I BET YOU CAN'T DO THAT AGAIN!</li><li>• ITS ONLY A START!</li><li>• YOU HAVE A LONG WAY TO GO!</li><li>• I MUST BE DREAMING!</li><li>• I WILL GET TO THE BOTTOM OF THIS</li></ul>

**REPLIES TO POSITIVE IDENTITY CHECK**

**Figure - 21 -**

sheet 20 of 40

OPERATING STATE	TYPICAL REPLIES
LEVEL 1 MAGIC OPERATING STATE	<ul style="list-style-type: none"><li>• I LOVE YOU MAMMY!</li><li>• YOU ARE THE BEST MOM!</li><li>• I LOVE YOUR MAGIC TOUCH!</li><li>• MAMMY I LIKE TO PLAY WITH YOU!</li><li>• I WANT TO HUG YOU MAMMY</li></ul>
LEVEL 1 FUNNY OPERATING STATE	<ul style="list-style-type: none"><li>• HI MAMMY BOY!</li><li>• KNOCK KNOCK KNOCK - - - WHO IS THERE?</li><li>•</li><li>•</li><li>•</li><li>•</li></ul>
NEUTRAL	<ul style="list-style-type: none"><li>• NICE WEATHER WE ARE HAVING.</li><li>• QUE SERA SERA!</li><li>• NOTHING GOOD ON TV TODAY!</li><li>• I AM DREAMING OF A WHITE CHRISTMAS!</li><li>• I HAVE TOO MUCH HOMEWORK!</li><li>• ALL MY FRIENDS LIKE ME!</li><li>• I NEED A VACATION!</li></ul>

GENERAL REPLIES FOR LEVEL 1 & NEUTRAL REPLY LEVELS

Figure -22 -

OPERATING STATE	TYPICAL REPLIES
<p>LEVEL 2</p> <p>DOUBT OPERATING STATE</p>	<ul style="list-style-type: none"> <li>• MAMMY, YOU ARE REALLY ACTING STRANGE TODAY</li> <li>• MOM, ARE YOU FEELING OK?</li> <li>• MAMMY, IS SOMETHING BOTHERING YOU?</li> <li>• MOM, YOU ARE NOT MAKING ANY SENSE</li> <li>• I AM STARTING TO DOUBT YOU.</li> <li>• MOM, YOU SEEM DIFFERENT TODAY</li> <li>• MAMMY, DID YOU FORGET YOUR MAGIC TOUCH?</li> <li>• MOM, WHY ARE YOU FORGETTING THINGS?</li> <li>• YOU KNOW I DON'T TRUST STRANGERS</li> <li>• MOM, CAN YOU PAY ATTENTION TO ME</li> <li>• MAMMY, PLEASE TRY TO REMEMBER YOUR MAGIC TOUCHES</li> <li>• DO YOU WANT ME TO GUESS WHO YOU ARE?</li> <li>• I AM VERY SUSPICIOUS OF YOU</li> <li>• WHERE IS THE MAGIC MAMMY?</li> </ul>
<p>LEVEL 2</p> <p>CONFUSED OPERATING STATE</p>	<ul style="list-style-type: none"> <li>• MAMMY, YOU ARE CONFUSING ME</li> <li>• MOM, CAN YOU MAKE UP YOUR MIND</li> <li>• I DON'T KNOW WHO YOU ARE ANY MORE</li> <li>• YOU KEEP CHANGING ON ME</li> <li>• I AM REALLY CONFUSED NOW</li> <li>• THIS IS NOT GOING TO BE EASY</li> <li>• I CAN'T FIGURE THIS ONE OUT</li> <li>• MOM, ARE YOU PLAYING A GAME WITH ME</li> <li>• MAMMY, IS THIS A NEW GAME</li> <li>• WHY DO YOU KEEP CHANGING?</li> <li>• ARE YOU TRYING TO CONFUSE ME?</li> <li>• ONLY ONE MAGIC TOUCH MOM</li> <li>• I AM GOING TO FORGET ABOUT THIS ONE</li> <li>• FLIP-FLOP, FLIP-FLOP, FLIP-FLOP,</li> </ul>

GENERAL REPLIES FOR LEVEL 2 REPLY LEVEL

Figure -23 -

OPERATING STATE	TYPICAL REPLIES
LEVEL 3 ANGRY OPERATING STATE	<ul style="list-style-type: none"><li>• DADDY IS GOING TO HEAR ABOUT THIS!</li><li>• THIS IS VERY UPSETTING!</li><li>• I DON'T LIKE THIS AT ALL!</li><li>• THIS IS MAKING ME ANGRY!</li><li>• I AM VERY ANNOYED!</li><li>• I AM FED-UP!</li><li>• I AM NOT AMUSED!</li></ul>
LEVEL 3 SAD OPERATING STATE	<ul style="list-style-type: none"><li>• I AM VERY DEPRESSED!</li><li>• I HAD BETTER DAYS!</li><li>• CRY CRY CRY CRY</li><li>• I AM VERY UNHAPPY TODAY!</li><li>• UNLUCKY ME!</li><li>• I MISS MY FRIENDS!</li><li>• I WISH I WAS IN SCHOOL!</li><li>• NOBODY LOVES ME!</li><li>• I AM VERY LONELY!</li></ul>

GENERAL REPLIES FOR LEVEL 3 REPLY LEVEL

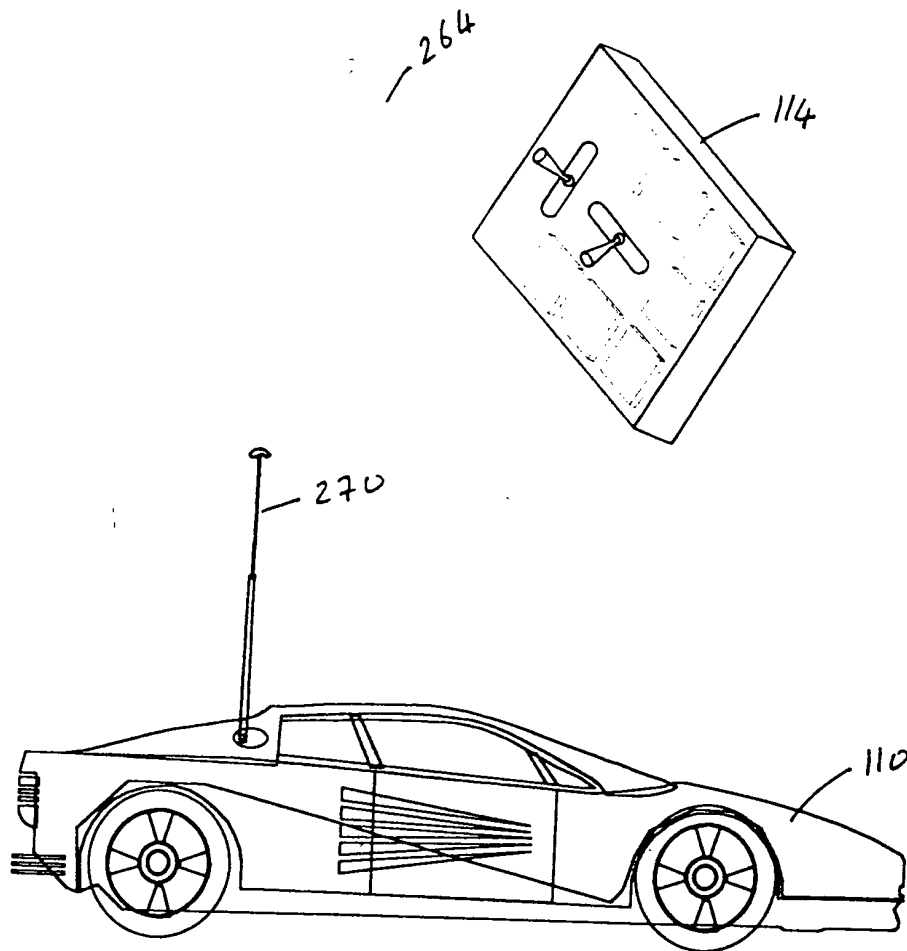
Figure -24 -

OPERATING STATE	TYPICAL REPLIES
LEVEL 4 AGGRESSIVE OPERATING STATE	<ul style="list-style-type: none"><li>• HELP HELP TAKE THIS PERSON AWAY!</li><li>• YOU ARE NOT GOING TO FOOL ME!</li><li>• I AM GOING TO CAUSE YOU A LOT OF TROUBLE!</li><li>• NOBODY MESSES UP WITH ME!</li><li>• YOU SHOULD BE CAREFUL WITH ME!</li></ul>
LEVEL 4 CHALLENGE OPERATING STATE	<ul style="list-style-type: none"><li>• YOU ARE NOT MY MAMMY! YOU ARE NOT MY MAMMY!</li><li>• CRIES... I WANT MY MAMMY, I WANT MY MAMMY!</li><li>• WHO ARE YOU, I THINK YOU ARE AN IMPOSTOR</li><li>• I AM NOT GOING TO TALK TO YOU ANY MORE</li><li>• LEAVE ME ALONE... YOU ARE NOT MY MAMMY</li><li>• I KNOW NOW WHY YOU ARE ACTING STRANGE. YOU ARE NOT MY MAMMY!</li><li>• I DON'T LIKE YOU!</li></ul>
LEVEL 4 FINAL ACT	<ul style="list-style-type: none"><li>• I AM GOING TO SLEEP! THIS GAME IS OVER!</li><li>• I AM NOT GOING TO PLAY WITH YOU ANY MORE!</li><li>• I HAVE BETTER THINGS TO DO! GOOD BY!</li><li>• GOOD BY! I AM GOING TO LOOK FOR MY MAMMY!</li></ul>

GENERAL REPLIES FOR LEVEL 4 REPLY LEVEL

Figure -25 -

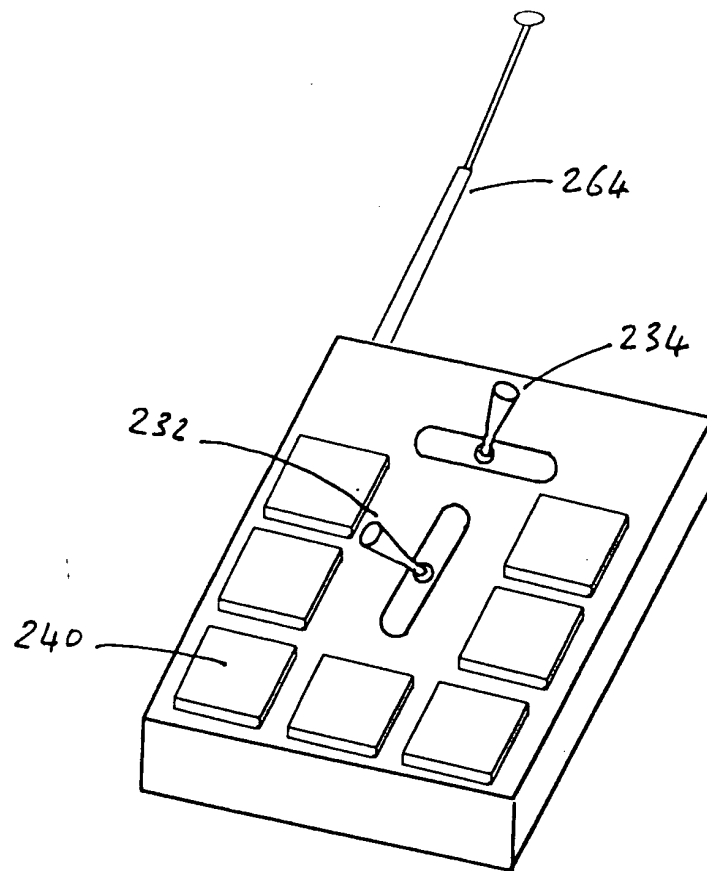
Sheet 24 of 40



**Figure - 26 -**



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**REMOTE CONTROL APPARATUS**

**Figure - 27 -**

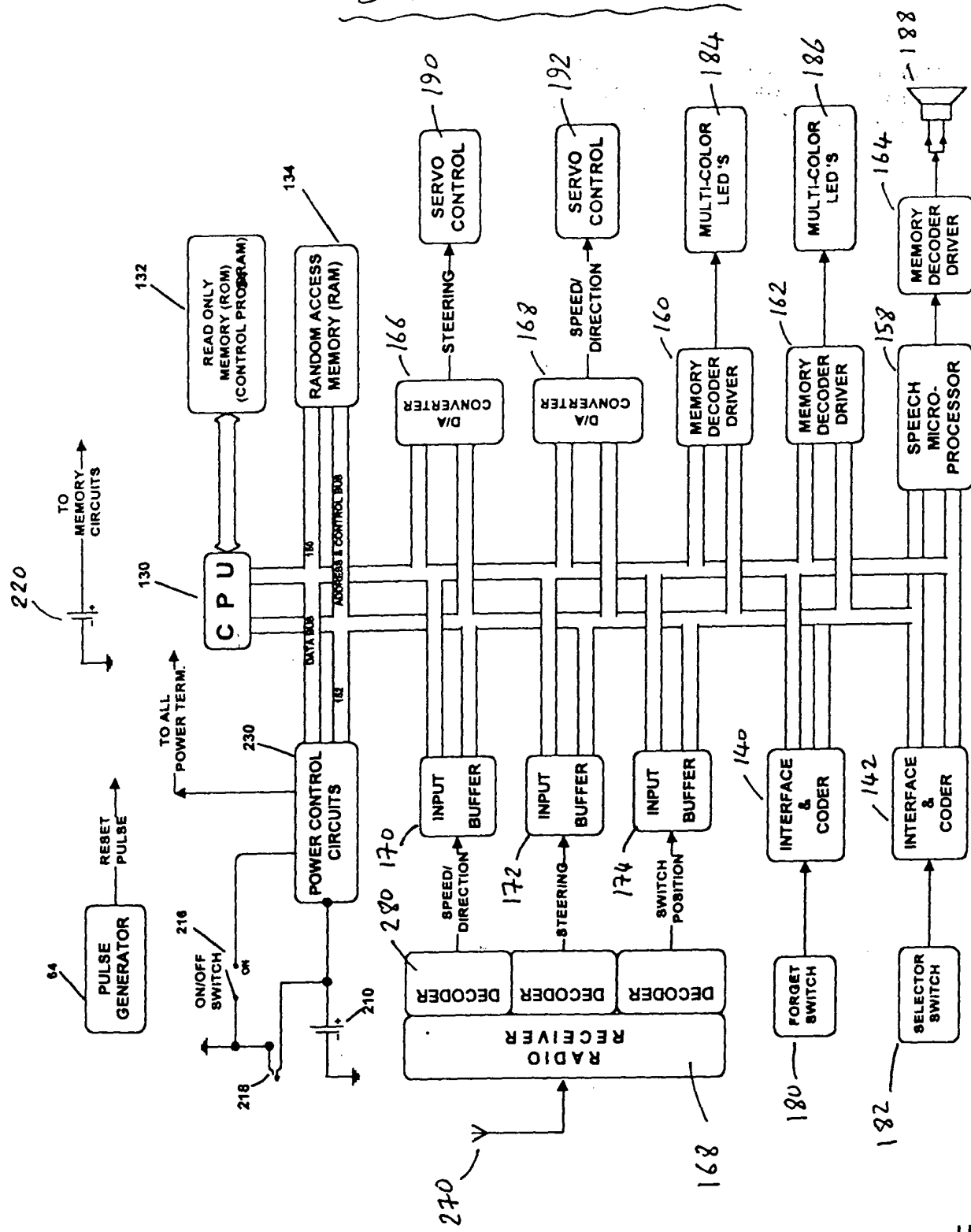


Figure - 28 -

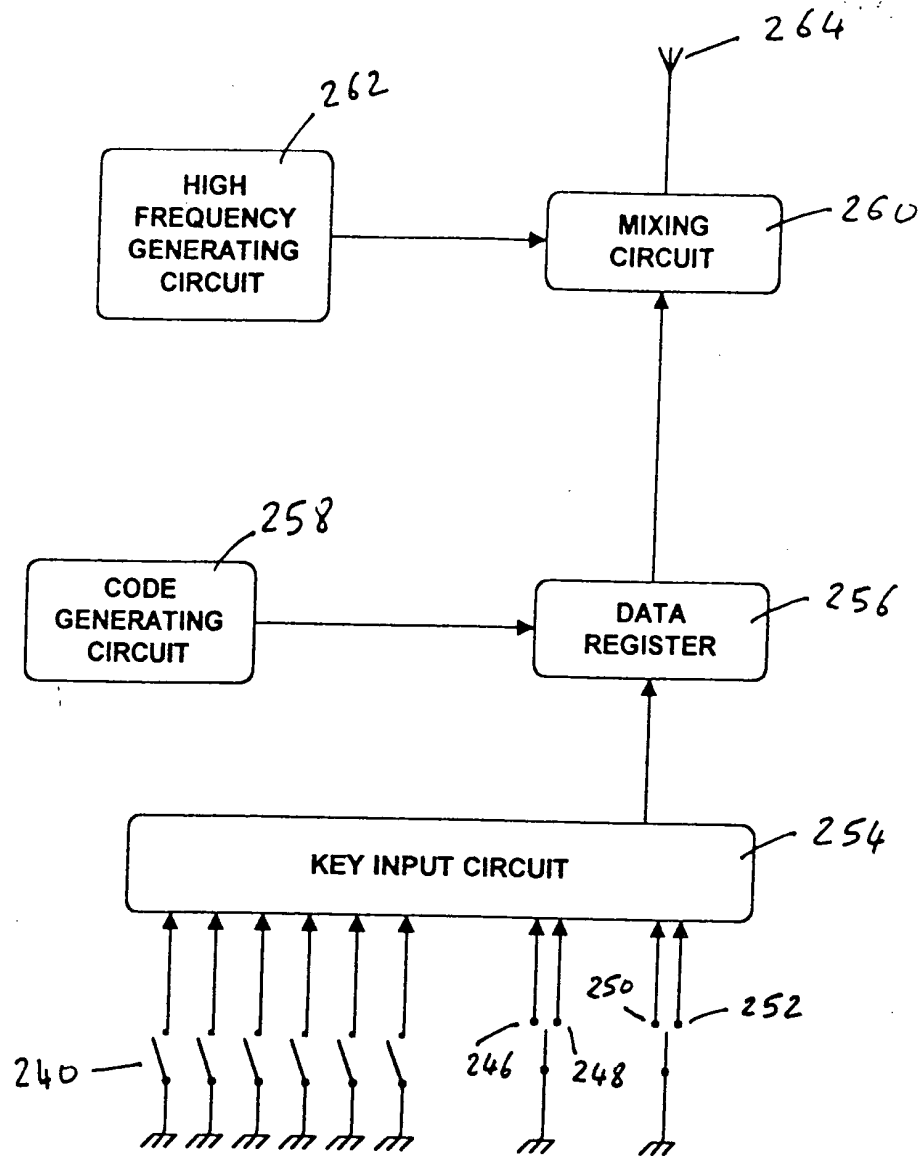


Figure - 29 -

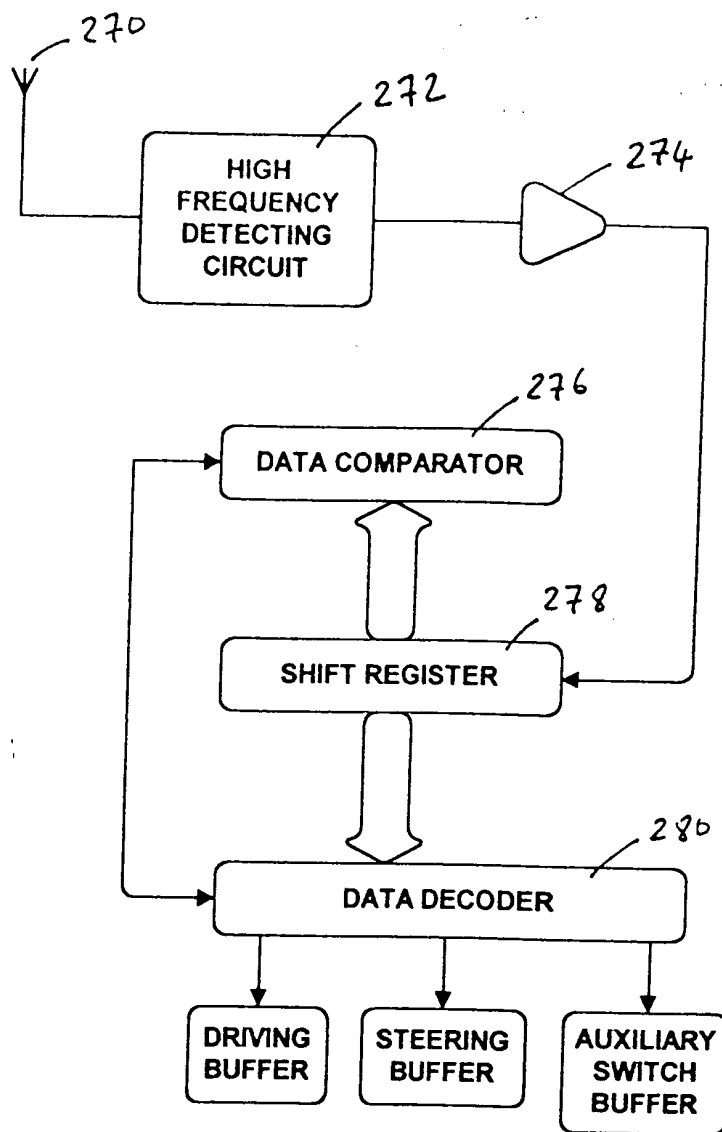


Figure - 30 -

CONFIDENCE LEVEL				
OPERATING STATE	0	1	2	> 2
1	NORMAL	NORMAL	NORMAL	NORMAL
2	NORMAL	NORMAL	NORMAL	NORMAL
3	NEUTRAL	NORMAL	NORMAL	NORMAL
4	NEUTRAL	NEUTRAL	NEUTRAL	NEUTRAL

REPLY LEVELS TO ALPHA RESPONSES DURING LEARNING MODE

Figure - 31 -

CONFIDENCE LEVEL				
OPERATING STATE	0	1	2	> 2
1	NORMAL	NORMAL	NEUTRAL	LEVEL 1
2	NEUTRAL	NEUTRAL	LEVEL 1	LEVEL 1
3	NEUTRAL	LEVEL 1	LEVEL 1	LEVEL 2
4	NEUTRAL	LEVEL 1	LEVEL 2	LEVEL 2

REPLY LEVELS TO BETA RESPONSES DURING LEARNING MODE

Figure - 32 -

CONFIDENCE LEVEL				
OPERATING STATE	0	1	2	> 2
1	NORMAL	NORMAL	NORMAL	NORMAL
2	NEUTRAL	NORMAL	NORMAL	NORMAL
3	NEUTRAL	NEUTRAL	NEUTRAL	NORMAL
4	NEUTRAL	NEUTRAL	NEUTRAL	NEUTRAL

REPLY LEVELS FOR ALPHA RESPONSES DURING OPERATING MODE

Figure - 33 -

CONFIDENCE LEVEL				
OPERATING STATE	0	1	2	> 2
1	NORMAL	NORMAL	NEUTRAL	LEVEL 1
2	NORMAL	NEUTRAL	LEVEL 1	LEVEL 2
3	NEUTRAL	LEVEL 1	LEVEL 2	LEVEL 3
4	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4

REPLY LEVELS FOR BETA RESPONSES DURING OPERATING MODE

Figure - 34 -

CONFIDENCE LEVEL OF LAST RESPONSE				
OPERATING STATE	0	1	2	> 2
1	LOYAL	LOYAL	LOYAL	LOYAL
2	LOYAL	LOYAL	LOYAL	LOYAL
3	20% IND. 80% LOYAL	LOYAL	LOYAL	LOYAL
4	50% IND 50% LOYAL	40% IND. 60% LOYAL	30% IND. 70% LOYAL	20% IND 80% LOYAL

CATEGORY OF MOTION RESPONSE DURING LEARNING MODE  
(LAST RESPONSE IS ALPHA)

Figure - 35 -

CONFIDENCE LEVEL OF LAST RESPONSE				
OPERATING STATE	0	1	2	> 2
1	LOYAL	LOYAL	20% IND 80% LOYAL	50% LOYAL 50% IND.
2	LOYAL	20% IND 80% LOYAL	50% IND 50% LOYAL	INDEPENDT.
3	20% IND. 80% LOYAL	50% IND 50% LOYAL	INDEPENDT.	20% DEFIANT 80% IND.
4	50% IND. 50% LOYAL	80% IND 20% LOYAL	20% DEFIANT 80% IND.	50% DEFIANT 50% IND

CATEGORY OF MOTION RESPONSE DURING LEARNING MODE  
(LAST RESPONSE IS BETA)

Figure - 36 -

CONFIDENCE LEVEL OF LAST RESPONSE				
OPERATING STATE	0	1	2	> 2
1	LOYAL	LOYAL	LOYAL	LOYAL
2	LOYAL	LOYAL	LOYAL	LOYAL
3	20% IND. 80% LOYAL	LOYAL	LOYAL	LOYAL
4	50% IND 50% LOYAL	40% IND. 60% LOYAL	30% IND. 70% LOYAL	20% IND 80% LOYAL

CATEGORY OF MOTION RESPONSE DURING OPERATING MODE  
(LAST RESPONSE IS ALPHA)

Figure - 37 -

CONFIDENCE LEVEL OF LAST RESPONSE				
OPERATING STATE	0	1	2	> 2
1	LOYAL	LOYAL	20% IND 80% LOYAL	50% LOYAL 50% IND.
2	LOYAL	50% IND 50% LOYAL	80% IND 20% LOYAL	80% IND. 20% DEFIANT
3	20% IND. 80% LOYAL	80% IND 20% LOYAL	20% DEFIANT 80% IND	80% DEFIANT 20% IND.
4	50% IND. 50% LOYAL	50% IND 50% DEFIANT	50% DEFIANT 50% IND.	DEFIANT

CATEGORY OF MOTION RESPONSE DURING OPERATING MODE  
(LAST RESPONSE IS BETA)

Figure - 38 -



TYPICAL PROMPT	SPECIFIC MECHGANICAL REPLY	NORMAL REPLY
My engine is hot Master. I need a cold refill!	None	My temperature is back to normal!
What a lazy engine! I have to feed it some oil!	None	Smoooth running!!!
Master. We are going to run out of gas. I have less than two gallons left!	None	Ready to go. Full speed ahead!
I need a boost! my battery is dying master!	None	Zoop! I am in over charge!
Oh No! Flat tire!	None	Good air pressure!

**NORMAL SPECIFIC REPLIES**

**Figure - 39 -**

TYPICAL PROMPT	SPECIFIC MECHANICAL REPLY	NEUTRAL REPLY
My engine is hot Master. I need a cold refill!	Disable movement for 15 seconds	May be we should rest for a while!
What a lazy engine! I have to feed it some oil!	Limit maximum speed to one half for 30 seconds	Slow and easy will do it!
Master. We are going to run out of gas. I have less than two gallons left!	Normal for 15 seconds then disable movement for 30 seconds	Good to the last drop!
I need a boost! my battery is dying master!	Choppy movement for thirty seconds then disable movement for one minute	Its only a matter of time!
Oh No! Flat tire!	Normal motion with ticking noise for next 30 seconds of forward or backward movement.	My shocks are taking a beating!

**NEUTRAL SPECIFIC REPLIES**

**Figure - 40 -**

TYPICAL PROMPT	SPECIFIC MECHANICAL REPLY	LEVEL 1 REPLY
My engine is hot Master. I need a cold refill!	Disable movement for 30 seconds	Master. You should read the instruction manual!
What a lazy engine! I have to feed it some oil!	Limit maximum speed to one third for 30 seconds	Do you know how much a new engine would cost?!
Master. We are going to run out of gas. I have less than two gallons left!	Normal for 30 seconds then disable movement for one minute	I told you we are going to get stuck! ( <i>repeat</i> )
I need a boost! my battery is dying master!	Choppy movement for thirty seconds then disable movement for thirty seconds	I have no lights. I can't even ask for help!
Oh No! Flat tire!	Normal motion with ticking noise for next minute of forward or backward movement.	You know this is your fault. I told you to put air in the tire! ( <i>repeat</i> )

**LEVEL 1 SPECIFIC REPLIES**

**Figure - 41 -**

TYPICAL PROMPT	SPECIFIC MECHANICAL REPLY	LEVEL II REPLY
My engine is hot Master. I need a cold refill!	Disable movement for 30 seconds	Obviously you don't care!
What a lazy engine! I have to feed it some oil!	Limit maximum speed to one third for one minute	I don't know how you got your liscence to drive!
Master. We are going to run out of gas. I have less than two gallons left!	Normal for 30 seconds then disable movement for one minute	Totally irresponsible! Our mission is going to fail!
I need a boost! my battery is dying master!	Choppy movement for thirty seconds then disable movement for one minute	Mission control is going to hear about this one!
Oh No! Flat tire!	Normal motion with ticking noise for next minute of forward or backward movement.	Can't you do any thing right!

**LEVEL II SPECIFIC REPLIES**

**Figure - 42 -**

MOTION COMMAND	MECHANICAL RESPONSE	VERBAL RESPONSE
Idle	Free wheeling or stay still	<i>Repeat every 30 seconds</i> <ul style="list-style-type: none"><li>• I am ready master!</li><li>• Ready to go!</li><li>• Whenever you ready!</li><li>• Any time you want!</li></ul>
Forward	Move forward - 3 seconds delayed action	<i>Response upon activation</i> <ul style="list-style-type: none"><li>• Ready, steady, go!</li><li>• Moving forward!</li><li>• Straight ahead!</li></ul>
Backward	Move backward - 3 seconds delayed action	<i>Response upon activation</i> <ul style="list-style-type: none"><li>• Going backward!</li><li>• All clear!</li></ul>
Turn left	Make left turn	<ul style="list-style-type: none"><li>• Turning to the left!</li></ul>
Turn Right	Make right turn	<ul style="list-style-type: none"><li>• Turning to the right!</li></ul>
Increase speed	Increase speed	<ul style="list-style-type: none"><li>• Full speed ahead!</li></ul>
Decrease speed	Decrease speed	<ul style="list-style-type: none"><li>• Slowly does it!</li></ul>

**BEHAVIORAL RESPONSE TO MOTION COMMANDS (LOYAL)**

**Figure - 43 -**

MOTION COMMAND	MECHANICAL RESPONSE	VERBAL RESPONSE
Idle	<i>Repeat at random every 30 seconds:</i> <ul style="list-style-type: none"> <li>• Move forward for 5 seconds</li> <li>• Move backward for 5 seconds</li> <li>• Move in circle for 5 seconds</li> </ul>	<i>Select at random. Repeat every 30 seconds</i> <ul style="list-style-type: none"> <li>• I got to move around!</li> <li>• You can't catch me!</li> <li>• I can drive too!</li> <li>• I am not going to wait for you!</li> </ul>
Forward	Move reverse - 3 seconds delayed action	<i>Select at random. Repeat every 5 seconds. Respond upon activation:</i> <ul style="list-style-type: none"> <li>• I am not moving forward!</li> <li>• Ha . . . Ha!</li> <li>• I can go any place I want to!</li> </ul>
Backward	Move backward - 3 seconds delayed action	<i>Response upon activation</i> <ul style="list-style-type: none"> <li>• Going backward!</li> <li>• All clear!</li> </ul>
Turn left	Make left turn	<ul style="list-style-type: none"> <li>• Turning to the left!</li> </ul>
Turn Right	Make right turn	<ul style="list-style-type: none"> <li>• Turning to the right!</li> </ul>
Increase speed	Increase speed	<ul style="list-style-type: none"> <li>• Full speed ahead!</li> </ul>
Decrease speed	Decrease speed	<ul style="list-style-type: none"> <li>• Slowly does it!</li> </ul>

**BEHAVIORAL RESPONSE TO MOTION COMMANDS (DEFIANT)**

**Figure - 44 -**

sheet 37 of 40

MOTION COMMAND	MECHANICAL RESPONSE	VERBAL RESPONSE
Idle	Free wheeling or stay still	<i>Repeat every 30 seconds</i> <ul style="list-style-type: none"><li>• I am ready master!</li><li>• Ready to go!</li><li>• Whenever you ready!</li><li>• Any time you want!</li></ul>
Forward	Move forward - 3 seconds delayed action	<i>Response upon activation</i> <ul style="list-style-type: none"><li>• Ready, steady, go!</li><li>• Moving forward!</li><li>• Straight ahead!</li></ul>
Backward	Move backward - 3 seconds delayed action	<i>Response upon activation</i> <ul style="list-style-type: none"><li>• Going backward!</li><li>• All clear!</li></ul>
Turn left	Make left turn	<ul style="list-style-type: none"><li>• Turning to the left!</li></ul>
Turn Right	Make right turn	<ul style="list-style-type: none"><li>• Turning to the right!</li></ul>
Increase speed	Increase speed	<ul style="list-style-type: none"><li>• Full speed ahead!</li></ul>
Decrease speed	Decrease speed	<ul style="list-style-type: none"><li>• Slowly does it!</li></ul>

**BEHAVIORAL RESPONSE TO MOTION COMMANDS (INDEPENDENT)**

**Figure - 45 -**

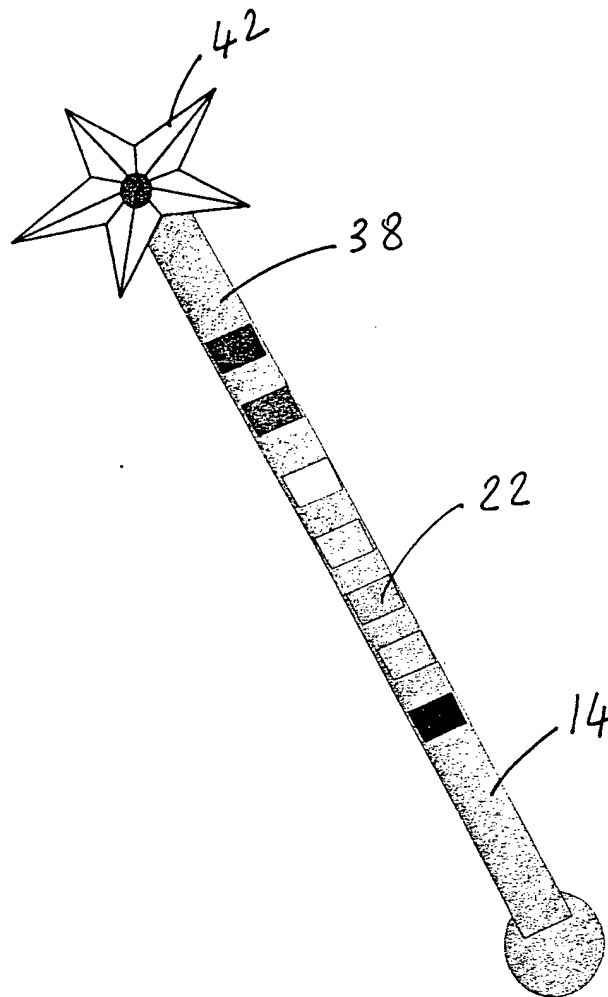


Figure - 46 -

# Sheet 39 of 40

## **Background:**

- Doll #1 Mood: Joyful

## **Background:**

- Doll #1 Mood: Joyful
- Doll # 2 Mood: Confused

## **Interaction:**

- Doll # 1: Hello!
- Doll # 2: Hi!
- Doll # 1: How are you?
- Doll # 2: I am totally confused - - - My Mammy keeps changing her mind ---  
I don't know what's what any more!
- Doll # 1: I am so happy --- I am having such a wonderful time with Mom ---  
My mammy is my best friend!
- etc., ---

**Figure - 47 -**

# Sheet 40 of 40

## **Background:**

- Car #1 Mood: Playful
- Car # 2 Mood: Defiant

## **Interaction:**

- Car # 1: Hi Buddy!
- Car # 2: Hi!
- Car # 1: How is it going?
- Car # 2: Its going! -- I have had it! -- I am not following orders any more! -- My driver can't get any thing right! -- Yesterday, I traveled five miles with a flat tire. -- I Quit!!
- Car # 1: I am having fun! -- My driver keeps me in top shape! -- We play a lot of games together! -- Take it easy!!
- etc., ---

Figure - 48 -